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ABSTRACT

A followup study assessed the effectiveness of the Milwaukee public high school career specialty programs. A total of 160 program graduates completed surveys in the first, second, and fifth years following high school graduation. Included in the survey were multiple-choice questions pertaining to current educational and employment status, the relationship of graduates' jobs to career specialty training, and the effectiveness of the career specialty in preparing them for continuing education and employment as well as three open-ended questions inviting comments on change of plans related to program participation, the effects of program participation on the job application process, and changes needed in career specialty programs. Of those surveyed, 63 percent were continuing their education, over two-thirds were in their high school specialty field, and 68 percent were employed. While almost all respondents found the career specialty programs extremely helpful, some graduates expressed comments resulting in changes in the career specialty programs. Among those changes effected in current programs as a result of the survey were the following: development of a new dance-related career choice, revisions in existing curricula in various health and business areas, and expansion of data processing specialty programs. (MN)

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DID CAREER EDUCATION HELP?
A FOLLOW-UP STUDY OF MILWAUKEE
HIGH SCHOOL CAREER SPECIALTY GRADUATES

by

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A paper prepared for presentation to the Special
Interest Group for Career Education-Career Guidance
at The American Educational Research Association
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CE03/539

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INTRODUCTION

What is the impact of career education on post-high school education and employment? Milwaukee Public Schools addressed this question during the 1980-1981 school year.

Career specialty programs in 14 city high schools were used as a method of achieving voluntary desegregation following a 1976 Federal Court order to achieve racial balance in the public schools of Milwaukee. Areas in which to develop programs were proposed by a blue ribbon panel representing business, industry, labor, government, education, and the professions, using the latest labor market data. ESAA Title VI and the school system provided funds for planning and operating the programs, which were developed by curriculum specialists, teachers, and advisory committees of professionals in the respective career fields. Most curricula provide three strands which prepare students either for entry-level jobs, further technical training, or college. Students interested in a specialty may elect to transfer from their attendance area schools or to attend the specialty school on a part-time basis.

Except for the High School for the College Bound which includes the total school population, all specialties are programs in addition to the regular program in a comprehensive high school. There are now 44 career specialty components within the 14 schools.

Bay View	Visual and Performing Arts (Art, Dance, Music, Theatre)
Custer	Applied Technology (Air Conditioning/Refrigeration, Plastics Technology, Chemical Technology, and five areas of Industrial Technology)
Hamilton	Marketing, Word Processing
Juneau	Business (Small Business Management, Real Estate, Banking, Insurance)
King	College Bound
Madison	Energy and Environment
Marshall	Communications and Media (Broadcasting, Journalism)
North Division	Medical, Dental, and Health
Pulaski	Transportation
Riverside	Human Services
South Division	Lodging and Tourism, Food Services, Recreation and Lifetime Sports
Vincent	Agribusiness and Natural Resources, International Studies
Washington	Computer Data Processing
West Division	Law, Law Enforcement, and Protective Services

A fifteenth high school, Milwaukee Trade and Technical High School, has offered that type of education for decades.

All but two Milwaukee high schools, North Division and West Division, now meet the court-ordered desegregation criterion (20% - 60% black). They are 96 percent and 74 percent black, respectively.

By 1981, 22 programs at 11 schools had graduates. Program staffs and administrators requested an assessment of program impact based on the experience of graduates.

Using a mail survey, the graduates of 1980 were queried on their post-high school experience. It was anticipated that survey results would be useful to the Superintendent, the Board of School Directors, and the program personnel in evaluating programs and planning modifications and expansions. The objectives were:

1. to survey all graduates of high school career specialties for assistance in planning improvements to meet student needs.
2. to provide data for storage in the Milwaukee Public Schools (MPS) student data bank for longitudinal study of career specialty graduates.

This data gathering, storage, and retrieval system is based on a model developed for Washington High School's Computer Data Processing Specialty in 1979-1980 by Robert Nelson, program implementor, and Dr. Robert Wysocki, University of Wisconsin-Whitewater. The original survey was developed by the Computer Data Processing Technical Advisory Committee, 17 experts representing Milwaukee education, industry, and business. The survey, designed for adaptation to other career specialties, was pilot-tested on over 200 graduates of Computer Data Processing in December 1979.

The survey instrument requested graduates to respond to multiple-choice questions indicating their current status in education and employment, the relationship of job to career specialty training, and the effectiveness of the career specialty in preparing them for continuing education and employment. Three open-ended items invited comments on change of plans related to program participation, the effects of program participation on the process of applying for a job, and suggestions for changes in career specialty programs. All items but one were common to each specialty. The surveys were customized with the program title as a heading and a cover letter written by the school's program implementor. A sample survey and cover letter are appended.

Methodology

The survey project was managed by the Research Department in cooperation with the Career Education Supervisor, a data processing systems analyst, and the Computer Data Processing Specialty program implementor.

Students were surveyed in the first, second, and fifth year following high school graduation. Early in the school year, lists of career specialty graduates

were generated from the MPS student data bank and sent to program implementors in the schools for verification and correction. Program implementors designed the format for the one item specific to each specialty and wrote cover letters on school stationery for their specific career specialties. Sufficient quantities for two mailings of these materials were printed at the Central Office. Labels containing the student's name, address, student data bank number, career specialty code, and graduation year were affixed to each survey. The survey, cover letter, and return envelopes were mailed in window envelopes in mid-December when graduates were likely to be home for the holidays. A second mailing to non-respondents followed in January.

The surveys were returned to the Research Department, where the open-ended responses were tabulated. Students in the computer program at Washington High School prepared the multiple-choice responses for data analysis. The data were analyzed by the Data Processing Division and entered into a special storage file in the Central Office student data bank for the longitudinal study. All computer programs were written in PL-1 language. An annual overall report was prepared by the Research Department. Results for individual career specialty programs were distributed to curriculum specialists, school implementors, principals, and administrative specialists. The information is used for program planning and improvement.

The task sequence follows:

1. School program implementors adapted the format of the survey item specific to each career specialty.
2. Implementors wrote a cover letter for their specialty programs.
3. The Data Processing Division identified career specialty participants according to graduation year using specialty course numbers in the student data bank.
4. Printouts of graduates' names, addresses, and specialties were sent to implementors for verification.
5. The student data bank was updated. Surveys and cover letters were printed.
6. The Data Processing Division printed address labels bearing the name, address, student data bank number, and graduation year of former students.
7. The Research Department assembled and mailed the survey forms by December 15. A second mailing (non-returns and corrected addresses) was sent on January 5.
8. After January 15, the Research Department scanned the surveys and recorded the open-ended responses.
9. The computer data processing students at Washington High School prepared survey data for processing.

10. The Data Processing Division performed the data analysis and stored the survey data in the career specialty student data file.
11. The Research Department wrote and distributed reports of survey findings.

Survey Population

Former students surveyed included 1979 and 1980 graduates of the Computer Data Processing and Word Processing Programs and 1980 graduates of the remaining career specialties noted previously.

Problems

There were two major problems. The original computer program written at UW-Whitewater had to be adapted for the MPS IBM 4341 Computer. The program language, PL-1, fit the MPS equipment, but there were system differences for which adjustments had to be made. As a result, data analyses were delayed for the 1981 survey.

The second problem was the great amount of clerical time needed to prepare the surveys for the initial and follow-up mailings.

Major Findings

Surveys were returned by 160 (38%) of the 417 graduates.

Results for Items 1 through 22 are shown in Table 1. Responses to Items 23 through 25 are summarized later in this section. The major findings are:

Education

- Of the 63% of graduates who were continuing their education: 51% attended school fulltime; over 70% were full-time scholars who had graduated from Visual and Performing Arts, Communications and Media, Health, and Community Human Services career specialties.
- Sixty-eight percent were attending college, and 32% were attending a technical or other school.
- Seventy-one percent were enrolled in an educational program directly or indirectly related to their high school specialty.

Employment

Of those responding to specific questions:

- 68% were employed full or part-time, the greatest proportion from Applied Technology and Marketing and Word Processing.

TABLE 1

RESPONSE CATEGORY PERCENTS
FOR THE GRADUATE SURVEY OF
MAGNET HIGH SCHOOL CAREER SPECIALTY PROGRAMS
IN DECEMBER 1980

(11 schools, 160 respondents)

	PERCENT RESPONSE*		PERCENT RESPONSE*
<u>EDUCATION</u>		5) Most recent degree/certificate received:	
1) I am . . .		High school diploma	96
attending school fulltime.	51	Two-year technical/vocational degree	--
attending school part-time.	12	Four-year college/technical degree	--
not attending school.	37	Other	4
No Response (N=8)		No Response (N=21)	
2) I attend a . . .		<u>EMPLOYMENT</u>	
four-year college-undergraduate school.	46	6) I currently . . .	
college-graduate school.	22	have a full-time job (35 hours a week or more).	34
two-year technical school.	22	have a part-time job.	32
Other	10	have more than one job.	3
No Response (N=65)		don't have a job.	31
3) My approximate cumulative GPA is (based on A = 4.0 scale) . . .		No Response (N=13)	
above 3.5.	15	7) My total annual salary or wage is (only used to determine averages, ranges, etc.) . . .	
3.0 to 3.5.	27	less than \$3,000.	28
2.5 to 3.0.	26	\$3,000 to \$5,999.	34
2.0 to 2.5.	24	\$6,000 to \$8,999.	18
less than 2.0.	8	\$9,000 to \$11,999.	18
No Response (N=68)		\$12,000 to \$14,999.	--
4) My educational program is . . .		\$15,000 to \$17,999.	1
directly related to my magnet specialty.	45	\$18,000 and above per year.	1
indirectly related to my magnet specialty.	26	No Response (N=59)	
not related to my magnet specialty.	29		
No Response (N=66)			

* Percents of those responding to item

TABLE 1 (Cont'd)

(11 schools, 160 respondents)

	PERCENT RESPONSE*		PERCENT RESPONSE*
8) For your principal employment, what are the name and address of your company, job title, and duties?		In preparing me for <u>continuing education</u> , the following aspects of the program were very helpful or helpful:	
<u>Employed in specialty field</u> - - - - -	51	16) Course work	68
No Response (N=1)		17) Career exploration activities	63
9) Currently, I prefer . . .		18) Independent learning activities	71
a full-time job.	44	19) Facilities	66
a part-time job.	39	20) What is your overall opinion of your school's specialty program?	
<u>no employment</u> - - - - -	17	Excellent	50
No Response (N=9)		Very good	36
10) Have you attempted to obtain a job related to your magnet specialty?		Good	11
No	49	Fair	1
<u>Yes</u> - - - - -	51	<u>Poor</u> - - - - -	2
No Response (N=23)		No Response (N=3)	
11) My employment preference is . . .		21) What is your opinion about the amount of time spent using the equipment in the specialty program?	
related to career specialty.	95	Too much	3
<u>unrelated to career specialty</u> - - - - -	5	About right	66
No Response (N=43)		<u>Too little</u> - - - - -	31
In preparing me for <u>employment</u> , the following aspects of the program were very helpful or helpful:		No Response (N=3)	
12) Course work	79	22) How well has the specialty program prepared you for entering the field?	
13) Career exploration activities	73	Very well	51
14) Independent learning activities	78	Satisfactory	43
15) Facilities	81	<u>Unsatisfactory</u> - - - - -	6
		No Response (N=11)	

* Percents of those responding to item

- 70% earned \$3,000 to \$11,999 annually, 28% earned less than \$3,000 annually, and 2% earned \$15,000 or more annually.
- 44% preferred to work fulltime, but only 34% had a full-time job. Thirty-nine percent preferred a part-time job, and 32% had part-time jobs.
- 51% attempted to obtain work related to their Magnet specialty.
- Most of the full and part-time jobs were entry-level positions in stores, offices, hospitals, restaurants, hotels, banks, and industries as clerks, aides, receptionists, and helpers.
- Most graduates who worked in areas related to their specialty had been enrolled in Applied Technology, Word Processing, Food Service, and Computer Data Processing.
- The majority of respondents preferred careers in their specialty field and aimed for higher-level jobs.

Preparation

- The program components (course work, career exploration, independent learning activities, facilities and equipment) were rated helpful or very helpful for employment by 73%.
- These same components were rated helpful or very helpful for continuing education by 63%.
- A positive overall opinion (good, very good, or excellent) of their specialty program was reported by 97%.
- The amount of time spent in the specialty was judged about right by 66% and too little by 31%.
- Preparation for post-high school education was judged very good or satisfactory by 94%.

Optional Responses

In three open-ended questions, graduates were asked to comment on the effects of their program and to suggest changes. A summary of the 359 positive statements, 47 negative statements, and 106 suggestions follows for each question.

How did participation change your educational plans?

Graduates reported these main effects.

- A decision to attend college
- A realization that they did not wish a career in the specialty

- An introduction to the variety of career possibilities related to the specialty
- Knowledge of training requirements for various occupations
- Career goals were developed or modified.

How did (will) your specialty program make a difference in applying for a job?

Graduates reported that the specialties provided them:

- the advantage of training and experience in the specialty.
- preparation for job applications.
- increased self-confidence.
- a reference for employers.
- the ability to use special equipment and perform special procedures.
- qualifications to start at a higher entry level.
- faster advancement.
- introduction to possible employers.
- less need for on-the-job training.
- an understanding of the career vocabulary.
- demonstration of an interest in the field.

If you wish, please give suggestions for changes in your career specialty program.

Overall, graduates felt that the specialty programs should have:

- more space.
- more and/or better equipment.
- screening to eliminate students who lack interest or ability.
- higher academic standards.
- more time in the program.
- more field trips.
- more teachers for greater individualization.

Survey Impact

Results of the 1980 survey affected career programs in the following ways:

- A "dance-related career" course will be developed for the Visual and Performing Arts Specialty at Bay View High School.
- Positive response to the Air Conditioning/Refrigeration component of Custer High School's Applied Technology Specialty supported planned expansion to include heating and solar energy components.
- The Word Processing Specialty at Hamilton High School prepared to add space and time.
- Students in Juneau High School's Banking Specialty were assigned more time, exercises, and supervision on the teller terminal.
- The Communications and Media Specialty, Marshall High School, requested updated equipment and prompt repair of existing equipment.
- The tenth-grade curriculum for the Medical, Dental, and Health Specialty at North Division High School was revised.
- Certain areas within the Human Services curricula at Riverside High School were strengthened.
- Career components of Recreation and Lifetime Sports at South Division High School will receive greater emphasis.
- The Computer Data Processing Specialty of Washington High School will receive greater emphasis on Job Control Language. Program capacity will be doubled by remodeling and adding a new computer system.
- Certification of program completion will be awarded to graduates of the Law, Law Enforcement, and Protective Services Specialty at West Division High School.

Conclusion

In summary, almost all of the responding graduates expressed great benefits from participation in the career specialties. Their responses indicated that the programs gave direction for post-high school education and job entry. They reported that it armed them with skills, knowledge, and self-confidence which gave them a competitive advantage in the job market and in continuing education.

In addition, the development of a longitudinal computer storage system will enable data collection from former graduates for up to five years, a period spanning meaningful advancement from entry-level jobs and completion of college. Their experience over that time should provide valuable feedback for career program planning.

APPENDIX



milwaukee public schools

CASIMIR PULASKI HIGH SCHOOL

2500 West Oklahoma Avenue
Milwaukee, Wisconsin 53215
Area 414: 671-4000

December, 1981

Dear Alumni,

As a past participant of the Transportation Specialty, you are invited to take part in a city-wide survey of specialty schools. It would be very helpful to us if you would take a few minutes to fill out the attached survey and return it in the enclosed envelope as soon as possible.

We are continually attempting to improve and up-grade our specialty program. Our Diesel Shop addition is now occupied by seven classes that are doing fine. We are also in the process of ordering a few pieces of new equipment. These are good examples of excellent progress.

Applications are being accepted for new students in: 16A-Truck Operations, 16B-Transportation Office, 16C-Traffic Management, 16D-Auto Body, 16E-Vehicle Diagnosis and Repair, and 16F-Diesel Technology. The enrollment this year is approximately 400 students and we expect an increase again for next year.

Best Wishes from your Specialty Staff and Friends at Pulaski for a great holiday season.

Sincerely,

Howard B. Davenport
Program Implementor
Transportation Specialty
Career Specialty Program

Specialty Staff Members:

Mr. Bolanowski
Mr. Fleter
Mr. Irmiger
Mr. Schenk
Mr. Sprecher

Ms. Dennee
Mr. Guyer
Mr. Pastorek
Mr. Sikorski
Ms. Theoret

HBD/dr

PULASKI HIGH



**TRANSPORTATION
SPECIALTY**

EVALUATION OF THE BAY VIEW HIGH SCHOOL
THEATRE CAREER SPECIALTY PROGRAM

IF DATA PRINTED ON LABEL ARE
INCOMPLETE OR INCORRECT, PLEASE
PRINT THE CORRECT INFORMATION IN
THE CORRESPONDING SPACES ON THE
RIGHT.

Last Name First Name Initial

Address

City State Zip Code

Telephone

Maiden Name

All information provided in this survey will be handled in the strictest confidence.
No names will be associated with reported results. Copies of reports will be provided
upon request.

Please place a check () beside your response to each item.

EDUCATION

- 1) I am:
- ☐ attending school full time.
 - ☐ attending school part time.
 - ☐ not attending school (skip to item 5).

- 2) Name of school
- ☐ I attend a 4-year college-undergraduate school.
 - ☐ I attend a college-graduate school.
 - ☐ I attend a 2-year technical school.
 - ☐ Other, please describe

- 3) My approximate cumulative GPA is (based on A = 4.0 scale)
- ☐ Above 3.5.
 - ☐ 3.0 to 3.5.
 - ☐ 2.5 to 3.0.
 - ☐ 2.0 to 2.5.
 - ☐ Less than 2.0.

- 4) My educational program is:
- ☐ Directly related to theatre.
 - ☐ Indirectly related to theatre.
 - ☐ Not related to theatre.

Major Program

- 5) Most recent degree/certificate received
- ☐ High School diploma
 - ☐ 2-year technical/vocational degree
 - ☐ 4-year college/technical degree
 - ☐ Other:
 - Specify Major:

EMPLOYMENT

- 6) I currently (check one)
- ☐ Have a full-time job (35 hours a week or more).
 - ☐ Have a part-time job.
 - ☐ Have more than one job.
 - ☐ Don't have a job (skip to item 9).

- 7) My total annual salary or wage is (only used to determine averages, ranges, etc.):
- ☐ Less than \$3,000.
 - ☐ \$3,000 - \$3,999.
 - ☐ \$4,000 - \$4,999.
 - ☐ \$5,000 - \$5,999.
 - ☐ \$6,000 - \$6,999.
 - ☐ \$7,000 - \$7,999.
 - ☐ \$8,000 - \$8,999.
 - ☐ \$9,000 - \$9,999.
 - ☐ \$10,000 - \$10,999.
 - ☐ \$11,000 - \$11,999.
 - ☐ \$12,000 - \$12,999.
 - ☐ \$13,000 - \$13,999.
 - ☐ \$14,000 - \$14,999.
 - ☐ \$15,000 and above per year.

- 8) For your principal employment, what are the name and address of your company, job title, and duties?

Name of Employer _____
Company or Firm _____
Address _____
City _____ State _____

Job Title _____

Duties _____

- 9) Currently, I prefer (check one)
- ☐ A full-time job.
 - ☐ A part-time job.
 - ☐ No employment (skip to item 12).

- 10) Have you attempted to obtain a job related to theatre?

☐ No.
☐ Yes, describe position sought.

- 11) My employment preference is (check one)

☐ Acting.
☐ Directing.
☐ Makeup and costuming.
☐ Lighting.
☐ Set design.
☐ Other, describe

(over)

EVALUATION OF THE BAY VIEW HIGH SCHOOL
THEATRE CAREER SPECIALTY PROGRAM

Please check () one of the following choices for each of items 11 - 13.

IN PREPARING ME FOR <u>EMPLOYMENT</u> , THE PROGRAM'S:	Very Helpful	Helpful	Of Little Help	Does Not Apply
12) Course work was	___	___	___	___
13) Career exploration activities were	___	___	___	___
14) Independent learning activities were	___	___	___	___
15) Facilities (lights, theatre) were	___	___	___	___

IN PREPARING ME FOR CONTINUING EDUCATION,
THE PROGRAM'S:

16) Course work was	___	___	___	___
17) Career exploration activities were	___	___	___	___
18) Independent learning activities were	___	___	___	___
19) Facilities (lights, theatre) were	___	___	___	___

20) What is your overall opinion of the Theatre Specialty Program? Comment (optional) _____	___ Excellent ___ Very good ___ Good ___ Fair ___ Poor
21) What is your opinion about the amount of time spent using the theatre equipment in the Specialty Program? Comment (optional) _____	___ Too much ___ About right ___ Too little
22) How well has the Specialty Program prepared you for entering the field of theatre? Comment (optional) _____	___ Very well ___ Satisfactory ___ Unsatisfactory

OPTIONAL RESPONSES

23) In what ways, if any, did participation in the Theatre Specialty
Program make a difference or bring about changes in your educational plans?

24) In what ways, if any, do you feel participation in this Career Specialty
Program made a difference (or will make a difference) when applying for a
job? _____

25) If you wish, please give suggestions for changes in the Theatre
Specialty Program. _____

